



US005134688A

United States Patent [19][11] **Patent Number:** **5,134,688****Corthout**[45] **Date of Patent:** **Jul. 28, 1992**

[54] **COMPUTER METHOD AND AN APPARATUS FOR GENERATING A DISPLAY PICTURE REPRESENTING A SET OF OBJECTS INCLUDING A BRUSH ELEMENT**

[75] **Inventor:** **Marc E. A. Corthout**, Eindhoven, Netherlands

[73] **Assignee:** **U.S. Philips Corporation**, New York, N.Y.

[21] **Appl. No.:** **624,465**

[22] **Filed:** **Dec. 7, 1990**

Related U.S. Application Data

[63] Continuation of Ser. No. 384,226, Jul. 21, 1989, abandoned, which is a continuation-in-part of Ser. No. 197,077, May 20, 1988, abandoned.

[51] **Int. Cl.⁵** **G06F 5/62**

[52] **U.S. Cl.** **395/142**

[58] **Field of Search** 364/518, 521, 526, 167.01; 340/706, 707, 710, 747; 382/55; 395/141-143

[56] **References Cited****U.S. PATENT DOCUMENTS**

4,633,46	12/1986	Walker	340/710 X
4,514,818	4/1985	Walker	340/710 X
4,631,690	12/1986	Corthout et al.	364/518
4,706,200	11/1987	Kishi et al.	364/167.01 X

Primary Examiner—Gary V. Harkcom

Assistant Examiner—Mark K. Zimmerman

Attorney, Agent, or Firm—Anne E. Barschall

[57] **ABSTRACT**

A computer method and apparatus for combining a brush object element with a trajectory object element in a graphics display system. The brush has a reference point that moves along a trajectory, and any point in application coordinates that is at any position covered by the brush, is assigned an -inside- indication. The trajectory may be non-closed or closed, in which latter case it may also govern an -inside- indication. The approach is point driven, which leads itself to acceleration by means of array calculations.

27 Claims, 7 Drawing Sheets

